

CLAIMS

What is claimed is:

1. A switching system for maintaining electrical power to a load, said system comprising:
 - 5 a primary power device;
 - a secondary power device;
 - a primary terminal electrically connected to said primary power device;
 - a secondary terminal electrically connected to said secondary power
 - 10 device;
 - an output terminal for providing electrical power to the load;
 - an electromechanical relay for automatically switching between said primary power device and said secondary power device for providing electrical power to the load, said relay comprising:
 - 15 a first relay input terminal electrically connected to said primary terminal;
 - a second relay input terminal electrically connected to said secondary terminal;
 - a relay output terminal electrically connected to said output
 - 20 terminal;
 - an electromagnet electrically connected to said first relay input terminal;
 - an electro-magnetically actuated multi-pole activator for electrically connecting said first relay input terminal to said relay
 - 25 output terminal when said electromagnet is energized and for

electrically connecting said second relay input terminal to said relay output terminal when said electromagnet is not energized;

a biasing means operatively connected to said multi-pole activator for assisting in the switching of said multi-pole activator when said electromagnet is not energized; and

a coupling terminal electrically interconnecting said secondary terminal and said primary power device for transmitting electrical power from said secondary power device to said primary power device.

2. A switching system as set forth in claim 1 wherein said primary power device is further defined as a primary uninterruptible power supply (UPS) for storing and supplying electrical power.

3. A switching system as set forth in claim 2 wherein said secondary power device is further defined as a secondary UPS for storing and supplying electrical power.

4. A switching system as set forth in claim 3 further comprising an external power source electrically connected to said secondary UPS for providing electrical power to said secondary UPS.

5. A switching system as set forth in claim 2 wherein said secondary power device is further defined as an external power source.

6. A switching system as set forth in claim 1 wherein said biasing means is further defined as a spring.

7. A switching system as set forth in claim 1 wherein said electromagnet is an air-core type electromagnet for reducing residual magnetism.

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